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Yasushi Uchida

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OLIFF & BERRIDGE, PLC  
P.O. BOX 320850  
ALEXANDRIA, VA 22320-4850

EXAMINER

KEMMERLE III, RUSSELL J

ART UNIT

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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.



### **DETAILED ACTION**

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

As discussed in the interview, the previous rejection of claim 12 under 35 U.S.C. §112 ¶2 is withdrawn.

As the current application is not currently found to be in condition for allowance the previous provisional non-statutory obviousness-type double patenting rejection over copending application 10/531,873 is maintained.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein

Art Unit: 1791

were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 9-12, 17 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Beall (WO 01/16,049) in view of Hamaguchi (US Patent 5,069,697).

Beall discloses a method of forming a ceramic honeycomb body involving kneading a mixture of magnesium oxide, aluminum oxide and silicon oxide (i.e., an aggregate particle material), with an organic binder system including water. This mixture is then formed into a honeycomb shaped green body, dried and fired (the firing process would inherently involve also calcining the body since it is fired at a temperature above the calcining temperature of such a body) (claim 1).

Beall further discloses that the silica could be in the form of colloidal silica (page 8 lines 8-9).

Beall does not specifically disclose an additive put in for the purpose of forming pores having a composition different than the organic binder.

Hamaguchi discloses a method of making a porous ceramic honeycomb filter that is substantially similar to the process of Beall as discussed above. Hamaguchi further discloses that the composition which is extruded into a honeycomb shape included a pore forming agent (referring to claim 18, Hamaguchi specifically discloses that the pore forming agent be graphite) (Col 3 line 34 – Col 4 line 10).

It would have been obvious to one of ordinary skill in the art, at the time of invention by applicant, to have modified the method of Beall as discussed above by adding a pore forming agent as taught by Hamaguchi (specifically graphite). This would have been obvious because a dedicated pore forming agent would allow for the greater control of both the total amount of porosity in the finished article, as well as the size of those pores. This would be desirable both as a way of creating articles matching desired specifications, as well as creating articles that maintain consistency throughout the batch.

Referring to claim 10, Beall discloses that the silica (which can optionally be in the form of colloidal silica) be in an amount of at least 5% by weight of the inorganic raw material mixture (aggregate particle material) (claim 4).

Referring to claim 11, Beall further discloses adding 0.2-2 parts by weight of sodium stearate (an alkali metal source) based on 100 parts by weight of the aggregate particle material (page 9 lines 17-21).

Referring to claim 12, Beall includes teachings that the aggregate material include alumina as discussed above. Further, Beall teaches that the mixture created include the aggregate material in an amount of at least 50% by mass (page 9 lines 9-21, based on the amount of additives disclosed being less than 50% by mass)

Referring to claim 17, Beall discloses that a preferred binder is methyl cellulose (page 9 lines 13-16).

***Response to Arguments***

Applicant's arguments with respect to claims 9-12 have been considered but are moot in view of the new ground(s) of rejection which were necessitated by the Applicant's amendment.

***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to RUSSELL J. KEMMERLE III whose telephone number is (571)272-6509. The examiner can normally be reached on Monday through Thursday, 7:00-5:00 EST.

Art Unit: 1791

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Griffin can be reached on 571-272-1189. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Steven P. Griffin/  
Supervisory Patent Examiner, Art  
Unit 1791

/R. J. K./  
Examiner, Art Unit 1791